



**CITY OF WILKES-BARRE, PENNSYLVANIA  
MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4) PROGRAM  
INSPECTION REPORT**

**WILKES-BARRE CITY HALL  
40 EAST MARKET STREET  
WILKES-BARRE, PENNSYLVANIA 18711**

**Report Date: September 12, 2014**

**Field Activity Dates: July 31, 2014 – August 1, 2014**

**U.S. Environmental Protection Agency, Region III  
Water Protection Division  
Office of NPDES Enforcement (3WP42)  
1650 Arch Street  
Philadelphia, PA 19103**

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## DOCUMENTS CITED IN REPORT

Shortened Name	Document Title and Date
Permit	<i>National Pollutant Discharge Elimination System (NPDES), Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), General Discharge Permit (PAG-13)</i>
City NOI	Notice of Intent for coverage under the Permit, submitted by the City on September 13, 2012

## ACRONYMS AND ABBREVIATIONS USED IN REPORT

Acronym or Abbreviation	Corresponding Term
BMP	best management practice
CCD	county conservation districts
CIP	capital improvement program
DEP	Pennsylvania Department of Environmental Protection
DPW	Department of Public Works
E&S	erosion and sediment
EPA	[United States] Environmental Protection Agency
GIS	geographic information system
IDD&E	illicit discharge detection and elimination
MCM	minimum control measure
MEP	maximum extent practicable
MOU	memorandum of understanding
MS4	municipal separate storm sewer system
NOI	notice of intent
NPDES	National Pollutant Discharge Elimination System
NRO	Northeast Regional Office (of DEP)
O&M	operation and maintenance
PCSM	post-construction stormwater management
QLP	qualifying local program
SOP	standard operating procedure
SWMP	stormwater management program
WVSA	Wyoming Valley Sanitary Authority

## EXECUTIVE SUMMARY

From July 31, 2014 through August 1, 2014, a compliance inspection team composed of staff from the U.S. Environmental Protection Agency (EPA) Region III and EPA's contractor, PG Environmental, LLC, (collectively the EPA Inspection Team) inspected the municipal separate storm sewer system (MS4) program of the City of Wilkes-Barre, Pennsylvania (the City).

Discharges from the City's MS4 are regulated by the Pennsylvania Department of Environmental Protection (DEP) *National Pollutant Discharge Elimination System (NPDES)*, *Stormwater Discharges from Small Municipal Separate Storm Sewer Systems General Permit (PAG-13)* No. PAG-132262 (the Permit). The City submitted its Notice of Intent (NOI) for coverage under the Permit on September 13, 2012. The Permit is set to expire on March 15, 2018.

The purpose of this inspection was to obtain information to assist EPA in assessing the City's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program.

Based on the information obtained and reviewed, the EPA Inspection Team made several observations concerning the City's MS4 program related to the specific Permit requirements evaluated. Table 1 summarizes the Permit requirements and the observations made by the inspection team.

**Table 1. Summary of Permit Requirements and Inspection Observations**

Permit Requirement	Observations
Appendix A, MCM #1 – Public Education and Outreach on Stormwater Impacts	Observation 1. The City had not developed a written public education and outreach program. Observation 2. The City had not developed a list of target audience groups. Observation 3. The City lacked printed materials (e.g., newsletter, pamphlet, flyer) and a Web site for annually distributing educational materials about the water quality impacts of stormwater discharges.
Appendix A, MCM #3 – Illicit Discharge Detection and Elimination (IDD&E)	Observation 4. The City had not developed a written program for the detection, elimination, and prevention of illicit discharges. Observation 5. The City's MS4 map(s) did not appear to identify the locations of all outfalls; areas of combined sewer system versus separate storm sewer systems; and the locations of all catch basins, channels, and swales within the storm sewer collection system. Observation 6. The City's outfall screening documentation had not been recorded on the "Outfall Reconnaissance Inventory/Sample Collection" field sheet. Observation 7. The City did not appear to provide educational outreach (i.e., training) to public employees regarding the City's activities to detect and eliminate illicit

Permit Requirement	Observations
	discharges.
Appendix A, MCM #4 – Construction Site Stormwater Runoff Control	Observation 8. The City lacked a formal agreement or memorandum of understanding (MOU) with the Luzerne County Conservation District to ensure that MCM #4–Construction Site Stormwater Runoff Control–was implemented as outlined in the Permit.
Appendix A, MCM #5 – Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities	<p>Observation 9. The City lacked a formal agreement or MOU with the Luzerne County Conservation District to ensure that the applicable components of MCM #5–Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities–were implemented as outlined in the Permit.</p> <p>Observation 10. The City did not have a written inspection program or tracking mechanism for PCSM BMPs in order to ensure proper O&amp;M.</p> <p>Observation 11. The City did not have an inventory, including the BMP attributes described in the Permit, of PCSM BMPs.</p>
Appendix A, MCM #6 – Pollution Prevention/Good Housekeeping for Municipal Operations	<p>Observation 12. The City had not developed a list or inventory of facilities and activities operated and maintained by the City that may contribute pollutants to the stormwater runoff to the MS4.</p> <p>Observation 13. The City had not developed or implemented a written O&amp;M program for City facilities and operations that may contribute pollutants to stormwater runoff and ultimately to the discharge from the MS4.</p> <p>Observation 14. The EPA Inspection Team observed site conditions related to pollution prevention and good housekeeping.</p> <p>Observation 15. The City lacked SOPs, prioritization procedures, and detailed documentation for street sweeping and catch basin cleanings.</p> <p>Observation 16. The City did not appear to have developed and implemented a formal employee training that addressed preventing or reducing the discharge of pollutants from municipal operations and activities to the MS4.</p>

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- Appendix 1: Pennsylvania Department of Environmental Protection (DEP) *National Pollutant Discharge Elimination System (NPDES), Stormwater Discharges from Small Municipal Separate Storm Sewer Systems General Permit (PAG-13)*
- Appendix 2: Original City NOI for MS4 Program and DEP NOI Checklist
- Appendix 3: Inspection Schedule
- Appendix 4: Inspection Sign-In Sheets
- Appendix 5: Exhibit Log
- Appendix 6: Photograph Log
- Appendix 7: Document Log

## INTRODUCTION

From July 31, 2014 through August 1, 2014, a compliance inspection team composed of staff from U.S. Environmental Protection Agency (EPA) Region III and EPA's contractor, PG Environmental, LLC, (collectively the EPA Inspection Team) inspected the municipal separate storm sewer system (MS4) program of the City of Wilkes-Barre, Pennsylvania (the City). The purpose of this inspection was to obtain information to assist EPA in assessing the City's compliance with the requirements of the *National Pollutant Discharge Elimination System (NPDES)*, *Stormwater Discharges from Small Municipal Separate Storm Sewer Systems General Permit (PAG-13)* No. PAG-132262 (the Permit) as well as the implementation status of its current MS4 program. Dry weather conditions were experienced for the duration of the inspection.

Appendices 1 and 2 of this report contain copies of the Permit and the City's latest Notice of Intent (NOI) and Pennsylvania Department of Environmental Protection (DEP) NOI Checklist, respectively. Part A.2.a of the Permit requires permittees to "implement, enforce and report on the Stormwater Management Program (SWMP) as set forth in Appendix A, designed to reduce the discharge of pollutants from the regulated small MS4s to the MEP [maximum extent practicable], to protect water quality and quantity, and to satisfy the appropriate water quality requirements of the Clean Water Act, the Pennsylvania Clean Streams Law, and regulations promulgated thereto." The SWMP outlines DEP's approved best management practices (BMPs) and measurable goals for the six federal minimum control measures (MCMs). In this report, readers should interpret the term "Permit" to include the SWMP.

The EPA Inspection Team obtained its information through a series of interviews with representatives from the City and the City's engineering consultant, PennEastern Engineers, LLC, (hereinafter, City Engineers) along with a series of site visits, record reviews, and field verification activities. The inspection schedule is presented in Appendix 3. The following primary representatives were involved in the inspection:

City Representatives: Mr. Attilio "Butch" Frati, Director of Operations  
Mr. Michael Simonson, Assistant Director of Operations  
Mr. Dave Lewis, Building Foreman/Inspector  
Mr. William Harris, Director of Planning and Zoning  
Mr. Michael Amato, PennEastern Engineers, LLC  
Mr. Christopher Bryk, PennEastern Engineers, LLC

EPA Representatives: Mr. Andy Dinsmore, EPA Region III  
Ms. Rebecca Crane, EPA Region III

DEP Representatives: Mr. Paul Grella, Environmental Engineer, Northeast Regional Office (NRO)  
Mr. Brian Burden, Environmental Engineer, NRO  
Mr. Leif Rowles, Environmental Engineer, Central Office  
Mr. Jeff Hartman, Water Quality Scientist, NRO

EPA Contractors: Mr. Jared Richardson, PG Environmental, LLC  
Mr. Bobby Jacobsen, PG Environmental, LLC



A sign-in sheet from the onsite inspection is included as [Appendix 4](#).

## **CITY OF WILKES-BARRE BACKGROUND**

The City is a relatively old industrial city located in northeastern Pennsylvania. It encompasses approximately seven square miles. According to the 2000 U.S. Census, its population was 43,123. The City's sewer system is composed of both separate sewers and combined sewers. According to City representatives, approximately 20 percent of the City's system is combined and 80 percent is separate. City representatives explained the City owns and operates the separate storm sewer system (e.g., storm sewer lines, outfalls, and catch basin inlets) and the sanitary sewer collection system, including combined sewers and separate sanitary sewer lines within the City. The City's sanitary sewer system (combined and separate sanitary lines) discharges to interceptors owned and operated by the Wyoming Valley Sanitary Authority (WVSA). According to City representatives, the City's MS4 discharges via approximately 137 identified outfalls to Bowman Creek, Coalbrook Creek, Laurel Run, Solomon Creek, Sullivan Creek, and the Susquehanna River.

City representatives explained that the MS4 stormwater program is implemented by the City's Operations Department, Department of Public Works (DPW), and consulting engineers PennEastern Engineers, LLC, who have been under contract with the City since 2004. According to City representatives, the City's MS4 program is funded by allocations from the City's general fund. The Director of Operations explained the general fund budget includes separate line items for MS4 maintenance and for combined sewer system maintenance. He added that the City did not have any specific capital improvement program (CIP) projects planned for stormwater at the time of the inspection. The City's general fund allocations from 2012 through 2014 are provided in [Appendix 5, Exhibit 1](#). City representatives also stated that the City had recently (July 2014) hired Cardno BCM to provide professional engineering services for system mapping; locating and identifying problems; and preparing plans, specifications and estimates to resolve any problems located.

## **INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS**

The EPA Inspection Team obtained documentation and other supporting information to evaluate compliance with the Permit prior to, during, and after meeting with City staff during the onsite inspection. Observations regarding the City's implementation of Permit requirements are presented in this report. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation.

Referenced documentation used as supporting information is provided in [Appendix 5](#), Exhibit Log and photograph documentation is provided in [Appendix 6](#), Photograph Log. A complete list of documents obtained is provided in [Appendix 7](#), Document Log.

On July 16, 2014, the EPA Inspection Team formally provided the City, via e-mail, with a written list of requested records (see [Appendix 5, Exhibit 2](#)). The City provided available documentation to the EPA Inspection Team prior to and during the onsite inspection.

This report describes and outlines specific Permit requirements and associated observations made during the inspection. The format of the report follows the numeric system used in the

Permit and is sequential. Sections of the Permit are restated with observations concerning those requirements listed below.

## **MINIMUM CONTROL MEASURE #1: PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

**Appendix A, MCM #1, BMP #1**—“Develop, implement and maintain a written Public Education and Outreach Program.”

**Observation 1:** The EPA Inspection Team observed, at the time of the inspection, that the City had not developed a written public education and outreach program. Upon formal request by the EPA Inspection Team for the City’s written public education and outreach program, City representatives stated that a written public education and outreach program had not been developed. City representatives explained that outreach to residents regarding stormwater has primarily focused on localized flooding rather than water quality or the impacts of stormwater discharges on receiving waters.

**Appendix A, MCM #1, BMP #2**—“Develop and maintain lists of target audience groups that are present within the areas served by your regulated small MS4s. In most communities, the target audiences shall include residents, businesses (including commercial, industrial and retailers), developers, schools, and municipal employees.”

**Observation 2:** The EPA Inspection Team observed, at the time of the inspection, that the City had not developed a list of target audience groups. Upon formal request by the EPA Inspection Team for a list of target audience groups for public education and outreach, City representatives explained that the City had not provided a Web site (or page on their site) describing the impacts of stormwater discharges on water quality or distributed mailers to residents, businesses, and schools with educational materials on the same.

**Appendix A, MCM #1, BMP #3**—“You must annually publish at least one issue of a newsletter, a pamphlet, a flyer, or a web site that includes general stormwater educational information, a general description of your Stormwater Management Program, and/or information about your stormwater management activities. The list of publications and the content of the publications must be reviewed and updated at least once during each year of permit coverage. Publications should include a list of references (or links) to refer the reader to additional information (e.g., PA DEP and US EPA stormwater websites, and any other sources that will be helpful to readers). You must implement at least one of the following alternatives:

- a. Publish and distribute in printed form a newsletter, a pamphlet or a flyer containing information consistent with this BMP.
- b. Publish educational and informational items including links to DEP’s and EPA’s stormwater websites on your municipal website.”

**Appendix A, MCM #1, BMP #4**—“Distribute stormwater educational materials and/or information to the target audiences using a variety of distribution methods, including but not limited to: displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV,

newspaper articles, other advertisements (e.g., at bus and train stops/stations), bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, storm drain stenciling.”

**Observation 3:** The EPA Inspection Team observed, at the time of the inspection, that the City lacked printed materials (e.g., newsletter, pamphlet, flyer) and a Web site for annually distributing educational materials about the water quality impacts of stormwater discharges. City representatives stated that the City provides informational posters located at City Hall, maintains flood protection outreach information on its Web site, and distributes an annual calendar containing trash collection and street sweeping schedules to residents. The EPA Inspection Team reviewed, at the time of the inspection, the above-mentioned materials and observed that the poster, Web site flood protection outreach, and calendar did not appear to provide educational materials about the City’s MS4 program or the water quality impacts of stormwater discharges. The materials primarily focused on flood-prone areas and City trash and recycling services.

### **MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)**

**Appendix A, MCM #3, BMP #1**—“Develop and implement a written program for the detection, elimination, and prevention of illicit discharges into your regulated MS4s. Your program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources. The program shall include the following:

- Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems.
- Procedures for screening outfalls in priority areas during varying seasonal and meteorological conditions.
- Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 outfall.
- Procedures for eliminating an illicit discharge.
- Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems.
- Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants).
- Procedures for program documentation, evaluation and assessment.”

**Observation 4:** The EPA Inspection Team observed, at the time of the inspection, that the City had not developed a written program for the detection, elimination, and prevention of illicit discharges. Upon formal request by the EPA Inspection Team for a copy of the City’s written IDD&E program, City representatives stated that a written IDD&E program and/or formal standard operating procedures (SOPs) had not been developed.

**Appendix A, MCM #3, BMP #2**—“Develop and maintain a map of your regulated small MS4. The map must also show the location of all outfalls and the locations and names of all surface waters of the Commonwealth (e.g., creek, stream, pond, lake, basin, swale, channel) that receive discharges from those outfalls.”

**Appendix A, MCM #3, BMP #3**—“In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new permittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including roads, inlets, piping, swales, catch basins, channels, basins, and any other features of the permittee’s storm sewer system including municipal boundaries and/or watershed boundaries.”

**Observation 5:** The EPA Inspection Team observed, at the time of the inspection, that the City’s MS4 map(s) did not appear to identify the locations of all outfalls; areas of combined sewer system versus separate storm sewer systems; and the locations of all catch basins, channels, and swales within the storm sewer collection system. Specifically, the City provided the EPA Inspection Team with (1) a hardcopy City map, dated November 10, 1977, depicting the City’s storm sewer system and combined sewer system; and (2) a City map titled “Sanitary Sewer Map,” dated February 17, 1978, depicting the City’s sanitary sewer system and combined sewer system. In addition, the City Engineers provided the EPA Inspection Team with eight, electronic geographic information system (GIS)-based maps, dated August 2012, depicting the City’s outfall locations.

The maps described above did not identify the location of all catch basins and channels. Specifically, the catch basins located along North Pennsylvania Avenue, adjacent to the City’s DPW facility (638 North Pennsylvania Avenue), were not identified on the maps (see Appendix 6, Photographs 1 through 4). An MS4 outlet to a stormwater conveyance channel located near 640 North Pennsylvania Avenue that appeared to discharge to the unnamed tributary of Laurel Run was not identified on the maps (see Appendix 6, Photographs 3 and 4).

In addition, the City maps from 1977 and 1978 did not appear to accurately identify the storm sewer collection system at the time of the inspection; the maps had not been updated to reflect recent City and WWSA combined sewer system separation projects. Furthermore, the GIS-based maps did not appear to accurately identify MS4 outfalls as defined by Part A.1 of the Permit and 40 CFR § 122.2. The City Engineers’ representatives stated that they had completed GIS-based mapping of all City outfalls in 2009. This included identifying as MS4 outfalls (1) all overland conveyances and (2) all pipe outlets to surface waters of the Commonwealth of Pennsylvania (excluding smaller diameter pipes that did not appear to be stormwater outfalls, such as groundwater drains and seep drains). It was unclear to the EPA Inspection Team, based on discussions with the City Engineers at the time of the inspection, if all of these outfalls were point-source stormwater discharges from the MS4 or if they met the definition of an outfall. For example, an

overland stormwater conveyance discharge point was observed in the field from a commercial business (Miners Mill Gas/Service Station) to a surface water of the Commonwealth. There was no apparent connection to the City-owned and operated stormwater conveyance system (i.e., MS4).

**Appendix A, MCM #3, BMP #4**—“For all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the outfall’s contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless of the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet (attached below) excerpted from the *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* (CWP, October 2004).”

**Observation 6:** The EPA Inspection Team observed, at the time of the inspection, that the City’s outfall screening documentation had not been recorded on the “Outfall Reconnaissance Inventory/Sample Collection” field sheet. The City Engineers’ representatives stated that, beginning in 2009, they have conducted annual outfall screening of all of the City’s identified MS4 outfalls and documented the screenings on forms developed in-house and titled “Illicit Discharge Field Screening Program Data Collection Form.” (see [Appendix 5, Exhibit 3](#)).

**Appendix A, MCM #3, BMP #6**—“Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

Educational outreach should include:

- Distribution of brochures and guidance for target audiences including schools;
- Programs to encourage and facilitate public reporting of illicit discharges;
- Organizing volunteers to locate and visually inspect outfalls and to stencil storm drains; and
- Implement and encourage recycling programs for common wastes such as motor oil, antifreeze and pesticides.”

**Observation 7:** The EPA Inspection Team observed, at the time of the inspection, that the City did not appear to provide educational outreach (i.e., training) to public employees regarding the City’s activities to detect and eliminate illicit discharges. In addition, the City did not appear to have a formal public employee training for the MS4 program. During the inspection, the Director of Operations explained that the City did not have specific stormwater awareness training (including information related to illicit discharges) for municipal employees.

## **MINIMUM CONTROL MEASURE #4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

The Permit fact sheet states, “DEP implements a state-wide erosion and sediment pollution control program applicable to any earth disturbance activity. In sixty-six of Pennsylvania’s sixty-seven counties, a significant portion of this program is delegated by DEP to county conservation districts (CCD) through a written delegation agreement. Under this statewide regulatory program, persons proposing or conducting earth disturbance activities are required to develop and implement an Erosion and Sediment Control Plan (“E&S Plan”) containing erosion and sediment (“E&S”) control BMPs which minimize the potential for accelerated erosion and sedimentation during construction activities and post construction stormwater management (PCSM) after construction. This DEP statewide regulatory program and its associated E&S control and PCSM BMPs in MCM #4—Construction Site Stormwater Runoff Control—and MCM #5—Post Construction Stormwater Management—satisfy the qualifying local program (QLP) requirements established under federal regulation at 40 CFR §122.34(c).”

**Appendix A, MCM #4**—“If you checked Option MCM #4.A in Section E(4)-(5) of the NOI, then you are relying on DEP’s statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under this MCM #4 and under BMPs #1 through #3 of MCM #5; therefore, all requirements are met for both this MCM #4 and BMPs #1 through #3 of MCM #5.”

The City selected Option MCM #4.A in section E(4)–(5) of the NOI ([see Appendix 2](#)), which states, “The permittee will rely on DEP’s statewide program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under MCM #4 and all requirements under BMPs #1 through #3 of MCM #5. In this case, the permittee is not required as a condition of this permit to implement any of the BMPs listed under MCM #4 nor any of the first three (3) BMPs listed under MCM #5 in Appendix A of the Authorization to Discharge.”

**Observation 8:** The EPA Inspection Team observed, at the time of the inspection, that the City lacked a formal agreement or memorandum of understanding (MOU) with the Luzerne County Conservation District to ensure that MCM #4—Construction Site Stormwater Runoff Control—was implemented as outlined in the Permit.

Part A.2.h of the Permit states, “Implementation of one or more of the minimum control measures may be shared with another entity, or the other entity may fully take over implementation of the measure. Because the permittee is responsible for meeting all permit conditions regardless of its delegations to other entities, the permittee should take steps to ensure that... The other entity agrees to implement the control measures on behalf of the permittee. The agreement between the parties shall be documented in writing and retained by the permittee with the SWMP and records for this general permit.”

## **MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW AND RE-DEVELOPMENT ACTIVITIES**

**Appendix A, MCM #5**—“If you checked Option MCM #4.A in Section E(4)-(5) of the NOI, then you are relying on DEP’s statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under BMPs #1 through #3 of this MCM #5; therefore, all requirements are met for BMPs #1 through #3 of this MCM #5 and for all requirements under MCM #4.”

The City selected Option MCM #4.A in section E(4)–(5) of the NOI (see Appendix 2), which states, “The permittee will rely on DEP’s statewide program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under MCM #4 and all requirements under BMPs #1 through #3 of MCM #5. In this case, the permittee is not required as a condition of this permit to implement any of the BMPs listed under MCM #4 nor any of the first three (3) BMPs listed under MCM #5 in Appendix A of the Authorization to Discharge.”

**Observation 9:** The EPA Inspection Team observed, at the time of the inspection, that the City lacked a formal agreement or MOU with the Luzerne County Conservation District to ensure that the applicable components of MCM #5–Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities–were implemented as outlined in the Permit.

Permit Part A.2.h states, “Implementation of one or more of the minimum control measures may be shared with another entity, or the other entity may fully take over implementation of the measure. Because the permittee is responsible for meeting all permit conditions regardless of its delegations to other entities, the permittee should take steps to ensure that... The other entity agrees to implement the control measures on behalf of the permittee. The agreement between the parties shall be documented in writing and retained by the permittee with the SWMP and records for this general permit.”

**Appendix A, MCM #5, BMP #6**—“Ensure adequate operation and maintenance of all post-construction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).” This BMP contains two measureable goals:

- (1) “Within the first year of coverage under this permit, new permittees shall develop and implement a written inspection program to ensure that stormwater BMPs are properly operated and maintained. The program shall include sanctions and penalties for non-compliance. All permittees shall review and update the inspection program annually and shall continue to implement this BMP.”
- (2) “An inventory of PCSM BMPs shall be developed by permittees and shall be continually updated during the term of coverage under the permit as development projects are reviewed, approved, and constructed. This inventory shall include all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4s. The inventory also should include PCSM BMPs discharging to the regulated

small MS4 system [sic] that may cause or contribute to violation of water quality standards. The inventory shall include:

- all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.
- the exact location of the PCSM BMP (e.g., street address);
- information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP
- Operation and Maintenance (O&M), if different from BMP owner;
- the type of BMP and the year it was installed;
- maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources;
- the actual inspection/maintenance activities for each BMP;
- an assessment by the permittee if proper operation and maintenance occurred during the year and if not,
- what actions the permittee has taken, or shall take, to address compliance with O&M requirements.”

The Permit further recommends that the City “develop a single system that supports recording and tracking the information specified in BMPs #3, #4 and #5 [of MCM #5].”

**Observation 10:** The EPA Inspection Team observed, at the time of the inspection, that the City did not have a written inspection program or tracking mechanism for PCSM BMPs in order to ensure proper O&M. City representatives stated the City did not have a written program for PCSM BMP inspections.

At the time of the inspection, it was unclear to the EPA Inspection Team if the City and/or CCD conducted inspections or maintenance activities to ensure long term O&M of PCSM BMPs within the City. City representatives stated that there were a total of seven PCSM BMPs (three public and four private) within the City, and representatives recollected that there had only been approximately six applicable PCSM projects in the last five years. City representatives stated that there was no written program or inspection frequency for these PCSM BMPs; however, City representatives attempt to conduct visual inspections of the public PCSM BMPs following rain events. It should be noted that the City did not utilize a checklist or document these inspections. City staff explained that if maintenance needs (e.g., mowing, outlet cleaning) were observed, then these activities were placed on the maintenance staff schedules.

The EPA Inspection Team visited, as a component of the inspection, two public PCSM BMPs (the Coal Street Complex rain garden/wet basin—completed in 2010—and the Coal Street retention basin—originally constructed in 2008 and reconfigured in 2010 along with improvements to Coal Street) and one private PCSM BMP (General Hospital rain gardens—completed in 2012). Vegetation and standing water were observed within the public Coal



Street retention basin (see [Appendix 6, Photographs 5 through 7](#)). It was unclear when this BMP was last maintained, but City staff stated the amount of vegetation and standing water in the basin was typical. Specifically, the EPA Inspection Team observed vegetative growth (including noxious weeds) within the Coal Street Complex rain garden / wet basin BMP and also observed what appeared to be a missing outlet structure grate at the time of the inspection (see [Appendix 6, Photographs 8 and 9](#)).

**Observation 11:** The EPA Inspection Team observed, at the time of the inspection, that the City did not have an inventory, including the BMP attributes described in the Permit, of PCSM BMPs. Upon formal request for a tracking inventory for PCSM BMPs, the City provided the EPA Inspection Team with an informal e-mail containing a list seven BMP locations (see [Appendix 5, Exhibit 4](#)). The EPA Inspection Team observed that this list did not include the exact location (i.e., street address), the BMP type, the BMP owner, the year BMP was installed, or the BMP maintenance requirements.

#### **MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

**Appendix A, MCM #6, BMP #1**—“Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).”

The measureable goal associated with this BMP states, “By the end of the first year of permit coverage, new permittees shall identify and document all types of municipal operations, facilities and activities and land uses that may contribute to stormwater runoff within areas of municipal operations that discharge to the regulated small MS4. Renewal permittees should have completed this list during the previous permit term. For all permittees, this information shall be reviewed and updated each year of permit coverage, as needed. Part of this effort shall include maintaining a basic inventory of various municipal operations and facilities.”

**Observation 12:** The EPA Inspection Team observed, at the time of the inspection, that the City had not developed a list or inventory of facilities and activities operated and maintained by the City that may contribute pollutants to the stormwater runoff to the MS4. Upon formal request by the EPA Inspection Team for documentation of City facilities and activities with the potential for generating

stormwater runoff to the MS4, City representatives explained that they did not formally document these facilities or activities. City representatives stated that the City has one DPW facility and conducts street sweeping, catch basin cleaning, stormwater asset repairs, snow/ice removal, and trash/recycling services.

**Appendix A, MCM #6, BMP #2**—“Develop, implement and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, as identified under BMP #1. This program (or programs) shall address municipally owned stormwater collection or conveyance systems, but could include other areas (as identified under BMP #1). The O&M program(s) should stress pollution prevention and good housekeeping measures, contain site-specific information, and address the following areas:

- Management practices, policies, procedures, etc. shall be developed and implemented to reduce or prevent the discharge of pollutants to your regulated small MS4s. You should consider eliminating maintenance-area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
- Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach your regulated small MS4s. You also should review your procedures for maintaining your stormwater BMPs.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt / sand (anti-skid) storage locations and snow disposal areas.
- Procedures for the proper disposal of waste removed from your regulated small MS4s and your municipal operations, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, and other debris.”

The measureable goal for BMP #2 of MCM #6 states, “All permittees shall review the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.”

**Observation 13:** The EPA Inspection Team observed, at the time of the inspection, that the City had not developed or implemented a written O&M program for City facilities and operations that may contribute pollutants to stormwater runoff and ultimately to the discharge from the MS4. Upon formal request by the EPA Inspection Team for a written O&M program, City representatives explained that they did not have a written O&M program for City facilities and operations.

According to City staff, the City’s DPW facility is the main location for housing the City’s vehicles and equipment as well as for fleet washing (via EJS Preventative Maintenance, Inc. contractor), fueling, and maintenance activities. In addition, the City’s yard waste (including public drop-off), roadway trash and debris, salt, topsoil stockpiles, and mulch stockpiles are

stored at the DPW facility. The City also maintains a nine-hole golf course, athletic fields, and has three fire stations and one police headquarters.

**Observation 14:** City representatives explained that stormwater runoff from the DPW facility drains to outfall #511 and subsequently discharges to Coalbrook Creek, then Laurel Run, then Millbrook Creek, and finally to the Susquehanna River. During a site visit to the DPW facility, the EPA Inspection Team observed, at the time of the inspection, the following site conditions related to pollution prevention and good housekeeping:

- a. City representatives were unaware of the discharge location of floor drains located in the DPW vehicle maintenance shop.
- b. Numerous petroleum product stains, with no evidence of spill response or cleanup BMPs, existed on the ground and on impervious surfaces of the DPW facility. Specifically, petroleum product staining was observed on the ground surface beneath the beds of the salt trucks (see Appendix 6, Photograph 10) and on the ground surface and impervious surface beneath the plow equipment (see Appendix 6, Photographs 11 through 14). In addition, petroleum product staining was observed on the impervious surfaces at the entrance to the mulch stockpile area (see Appendix 6, Photograph 15) and at the employee parking lot area (see Appendix 6, Photograph 16).
- c. Trash, debris, and waste materials were scattered throughout the DPW facility, and a lawnmower battery was observed without coverage or containment (see Appendix 6, Photographs 17 through 20).
- d. The fuel island located upgradient of a storm drain inlet at the DPW facility was not equipped with a spill kit, and the downgradient storm drain inlet was not equipped with an appropriate BMP for fuel and petroleum products spills (see Appendix 6, Photograph 21).

**Observation 15:** The EPA Inspection Team observed, at the time of the inspection, that the City lacked SOPs, prioritization procedures, and detailed documentation for street sweeping and catch basin cleanings. City representatives explained that there were approximately 3,000 inlets in the City and that the primary focus for street sweeping and catch basin cleaning was in the downtown area; its main purpose was to minimize or prevent localized flooding. During field activities conducted as a component of the inspection, the EPA Inspection Team observed that it did not appear that the City had conducted catch basin cleaning or street sweeping on an established frequency in various areas of the City.

At the time of the inspection, the City utilized a contractor, Stell Enterprises, Inc., for catch basin cleaning activities. The contract had been renewed on March 1, 2014. It was unclear to the EPA Inspection Team how many catch basins are cleaned per year. It appeared that direction and prioritization of catch basin cleaning from the City to the contractor was based on institutional knowledge and was focused primarily on responding to complaints and flood-

prone areas. Stell Enterprises representatives stated that they had only cleaned portions of the stormwater system over the last three years, but not the entire system. They explained their typical process uses a threshold of one-quarter of the catch basin's total capacity as a trigger for cleaning activities. In addition, the staff takes photographs before and after catch basin cleanings. During the inspection, at a catch basin inlet located on North Pennsylvania Avenue adjacent to the DPW facility, significant vegetative growth in and around the inlets was observed (see Appendix 6, Photographs 1 and 2). Stell Enterprises representatives also stated they had begun using global positioning system (GPS) location information for documenting catch basin cleanings. This was an ongoing process, which they had started early in 2014. According to City and contractor representatives, all collected and generated wastes are disposed of at the Keystone Landfill in Dunmore, Pennsylvania.

During field activities conducted as a component of the inspection, the EPA Inspection Team observed that it did not appear that the City had conducted street sweeping on an established frequency in various areas of the City. It was unclear to the EPA Inspection Team how many streets are swept per year. Specifically, City representatives estimated that all City streets are swept four times per year; however, documentation of this activity appeared to be limited to employee timesheet logs and did not include items such as quantity of material removed or clearly identify street sweeping dates/locations. During the inspection, accumulated trash and debris was observed in the curb and gutter flow pathway upgradient and adjacent to the catch basin inlet on West Maple Street (see Appendix 6, Photograph 22), and accumulated organic matter, trash, and a tree sapling were observed within one of the catch basins along West Maple Street (see Appendix 6, Photograph 23). In addition, the EPA Inspection Team observed vegetative growth in the curb and gutter flow pathway on Henry Street near the intersection with Conyngham Avenue (see Appendix 6, Photograph 24). According to City and contractor representatives, all collected and generated wastes are disposed of at the Keystone Landfill in Dunmore, Pennsylvania.

**Appendix A, MCM #6, BMP #3**— “Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from municipal operations to your regulated small MS4s. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. Any municipal employee or contractor shall receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. Training topics should include operation, inspection, maintenance and repair activities associated with any of the municipal operations / facilities identified under BMP #1. Training should cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.”

There are two measureable goals for BMP #3 of MCM #6:

- (1) “During the first year of permit coverage, new permittees shall develop and implement a training program that identifies the training topics that will be covered, and what training methods and materials will be used. Renewal permittees shall continue to operate under their existing program. All permittees shall review the training program annually, edit it as necessary, and continue to implement it during every year of permit coverage.”
- (2) “Your employee training shall occur at least annually (i.e., during each permit coverage year) and shall be fully documented in writing and reported in your periodic reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s). Guidance: The training requirements of this BMP can be met in various ways. Training can be:
  - formal or informal;
  - conducted on-site or off-site;
  - conducted on-the-job or during dedicated training periods;
  - conducted one-on-one or in a group setting (including with staff from other MS4s);
  - conducted by municipal staff or consultants/volunteers;
  - conducted via oral presentations/instructions and/or via written materials (e.g., SOP’s, guidance manuals, tests).”

**Observation 16:** The EPA Inspection Team observed, at the time of the inspection, that the City did not appear to have developed and implemented a formal employee training that addressed preventing or reducing the discharge of pollutants from municipal operations and activities to the MS4. Upon formal request by the EPA Inspection Team for training documentation and syllabi, City representatives stated that they do not maintain formal documentation for training activities related to stormwater. During the inspection, the Director of Operations explained that the City does not have specific stormwater awareness training (including information related to pollution prevention and good housekeeping) for municipal employees.